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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,540	08/20/2003	Akio Murata	8861-383U1 (P22272-01)	6535

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EXAMINER

RENNER, CRAIG A

ART UNIT

PAPER NUMBER

2652

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,540

Applicant(s)

MURATA ET AL.

Examiner

Craig A. Renner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/545,735.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3-6.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copies have been filed in parent Application No. 09/545,735, filed on 10 April 2000.

Drawings

2. The drawings were received on 20 August 2003. These drawings are accepted.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In lines 5-6 of claim 1, "said insulation substrate" is indefinite because it lacks clear and/or positive antecedent basis.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 2-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Gill (US 6,278,589).

Gill teaches a magnetic reproduction device comprising a magnetic pole (SV1) of a multi-layer film including first magnetic films (212, 234, and 232, for instance) and first non-magnetic films (208 and 230, for instance) alternately laminated on an insulation substrate (76); a main magnetic pole core (SV2) including soft second magnetic films (238, 240, and 214, for instance, lines 10-17 in column 7, for instance, i.e., "CoFe" and "NiFe" are soft magnetic materials) and second non-magnetic films (236 and 210, for

instance) alternately laminated on the magnetic pole formed of the multi-layer film (as shown in FIG. 12, for instance); a pair of conductors (134 and 136) formed on the insulation substrate and electrically connected to both ends of the main magnetic pole core, respectively (as shown in FIG. 11, for instance); a first pair of electrode terminals (at the distal end of 112 and 114, for instance) connected to the pair of conductors, respectively; and a second pair of electrode terminals (104 and 106, for instance, at the proximal end of 112 and 114, respectively) connected to the conductors, respectively [as per claim 2]; wherein the magnetic pole formed of the multi-layer film has a projection portion (as shown in FIG. 12, for instance) opposite to a recording medium (34) [as per claim 3]. With respect to the intended use limitations appearing in lines 13-15 and 17-18 claim 2, note that a recitation with respect to the manner in which a claimed apparatus (i.e., "magnetic reproduction device") is intended to be employed (i.e., "to supply a high-frequency current from an external constant current source to the conductors" and "to output a voltage generated by said high-frequency current", for instance) does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations, *Ex parte Masham*, 2 USPQ2d 1647 (PTO BPAI 1987).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US 5,491,600) in view of Walraven (US 4,19,871).

Chen teaches a magnetic reproduction device comprising a main magnetic pole core including soft magnetic films (65 and 75, for instance) and non-magnetic films (70 and 80, for instance) laminated alternately on a nonmagnetic substrate (41/60, for instance); a pair of conductors (38 and 40, for instance) formed on the insulation substrate and electrically connected to both ends of the main magnetic pole core, respectively (as shown in Fig. 2, for instance); a first pair of electrode terminals (on each side of 45, for instance) connected to the pair of conductors, respectively; a power source (45) connected across the first pair of electrode terminals to supply a current to the conductors (lines 17-19 in column 5, for instance); and a second pair of electrode terminals (on each side of 43, for instance) connected to the conductors, respectively, to output a voltage generated by the current (lines 13-17 in column 5, for instance). Chen, however, remains silent as to the power source being a "high-frequency current" power source.

Walraven teaches a power source (2) connected across a first pair of electrode terminals to supply a current to conductors of a soft magnetic film pole core (1), and a second pair of electrode terminals connected to the conductors, respectively, to output a voltage (V_s) generated by the current. Walraven additionally teaches that the power source can be either "a direct current or an alternating current" (lines 37-40 in column 1, for instance). Walraven, however, teaches that it is preferable that the power source be a "high frequency current" in order to "achieve a large sensitivity" (line 62 on page 1 thru line 2 in column 2, for instance). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the power source of Chen be a high-frequency current power source as taught by Walraven. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have had the power source of Chen be a high-frequency current power source as taught by Walraven since such increases sensitivity.

Pertinent Prior Art

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes Akiyama et al. (US 4,593,332), which teaches a magnetic reproduction device with alternately laminated soft magnetic and non-magnetic films through which a high frequency current flows (lines 9-10 in column 3, for instance); and Araki et al. (US 6,738,234), which teaches a magnetic reproduction

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device with alternately laminated soft magnetic and non-magnetic films and having a portion thereof defining a projection portion.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (703) 308-0559. The examiner can normally be reached on Tuesday-Friday 7:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Craig A. Renner
Primary Examiner
Art Unit 2652

CAR